Air Masses and Predicting Weather Study Guide

| 1-What is an air mass? | An air mass is a huge body of air that has similar temperature, humidity, and air pressure at any given height. |
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| 2- How do air masses move? Identify the two ways. | Air mass moves two ways prevailing westerlies and jet streams. |
| 3-What are air fronts? | Air fronts are a boundary between two different air masses, which results in bad storm weather. |
| 4- How are air masses different from fronts? | Fronts are the boundary where the air masses meet and become a front and air masses are huge bodies of air that have similar temperature, humidity, and air pressure at any given height. |
| 5- What is a **cold** front? How is it created? What is the symbol? How does the weather change after this type of front passes? | A cold front is a movement of cooler air mass into an area of warmer air. Warm fronts are created when a cold air mass runs into a warm air mass.The cold fronts symbol is 3 blue triangles and a blue line. After a cold front passes its weather becomes heavy rains, winds, thunderstorms, and tornadoes. |
| 6-What is a **warm** front? How is it created? What is the symbol? How does the weather change after this type of front passes? | A warm front is a front where a warm air mass is replacing a cold air mass. A warm front is created when a fast moving warm air mass overtakes a slower moving cold air mass. The symbol for a warm front is 3 red dots and a red line. When a warm front passes the weather is light rain and snow. |
| 7-What is an **occluded** front? How is it created? What is the symbol? How does the weather change after this type of front passes? | An occluded front is a composite front produced by occlusion. An occluded front is created when a cold front overtakes a warm front. The symbol for an occluded front is 2 purple dots and a purple line and a purple triangle in the middle. When an occluded front passes the weather is weather clouds, rain, and snow. |
| 8-What is a **stationary** front? How is it created? What is the symbol? How does the weather change after this type of front passes? | A stationary front is a front that stays in one place for a long period of time. A stationary front is created when cold and warm air masses, but neither one can move the other. The symbol for a stationary front is two red dots, a red line, and an upside down blue triangle. |
| 9- How do cyclones and anticyclones differ? | A cyclone is a low pressure system and an anticyclone is a high pressure system. |
| 10- What type of weather is high pressure associated with? | High pressure is associated with dry weather. |
| 11- What type of weather is low pressure associated with? | Low pressure is associated with clouds and precipitation. |
| 12- How do you read a weather map? | You read a weather map by knowing what different things are on the map with a key. Which is a thing that helps you know what something is. |
| 13- How do you know which direction weather fronts are going in? | You will know because on a weather map a cold front has a solid blue line with triangles pointing in the direction of the warm that replaces it. |
| 14- Explain the cup and pressure experiment. What does this experiment have to do with air pressure? | It has to do with air pressure because air pressure is a measure of weight of air above us in the atmosphere. The cup and pressure but the pressure could be water or anything so air pressure forces air down above us and the cup and pressure push down the cup. |